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FOREIGN CORRESPONDENCE.

PARIS, OCTOBER 28, 1853.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—From the influx of students and medical strangers, the *quartier latin* is beginning once more to put on its scholastic appearance. The lectures of the Faculty will soon announce their commencement of the winter session; and although during the *vacance* the lectures have been suspended, yet dissections and private instruction have been going on without much interruption.

For several months I have followed, with very much satisfaction, the cliniques of MM. Sichel and Desmarres upon diseases of the eye. Besides their immense private practice, these gentlemen hold cliniques for the benefit of indigent persons—the former twice a week, and the latter three times. Generally from 150 to 200 patients present themselves at each session, which, of course, furnishes many operations of every character practised upon the visual organs. In persons over 40, the operation for cataract by extraction is generally performed, and the success is truly gratifying—a very large majority of cases having sight restored without accident. The flap operation of the upper half of the cornea is always selected, from the fact that there is not so much liability of the escape of the aqueous humor, neither of prolapsus iridis, as the upper lid keeps the flap in a more exact position; and above all, should the flap unite and leave a depression in it, instead of its globular appearance, it would alter the axis of vision, so that the patient would be obliged to incline the head forward to bring the rays of light to a proper focus, which is far more advisable than to raise the head for the same purpose, which would be the result in a majority of cases if the same depression occurred, in flaps made from the lower half of the cornea. I have seen an Italian oculist of distinction perform the latter, giving, as a reason, that if there should be any effusion within the chambers it would more readily escape. In operations for artificial pupil, as a general thing, the inferior and internal portion of the iris is the part removed. This rule is subject to some variation, according to the opacity of the cornea, &c. In obstructions of the lachrymal ducts, the style is nearly abandoned, as a barbarous practice, and one liable to many grave accidents. Sometimes

M. Desmarres practises dilatation by introducing small *sondes*; sometimes *catheterisme*; but there is always danger of a relapse in a few months. In most of these cases, if of long standing, the lachrymal sac becomes inflamed, implicating the eye, and finally a fistula lachrymalis is the result. Such has been the course in a very large number of the cases which I have observed. In such patients M. Desmarres cures *radically* by destroying the lachrymal sac. He makes a somewhat circular incision down upon the sac, dissecting laterally, so that it may be fully exposed, then applies the actual cautery, which completely destroys the sac, the wound healing without any very noticeable deformity; and in twenty to forty days the patient is cured of an affection that may have lasted him many years. I have seen some patients who have been operated upon two or three times by other methods, but to no effect; while the destruction of the sac rendered the cure complete.

But it may be asked, what becomes of the tears, if the *sac*, and perhaps the lachrymal canal, is destroyed? Anatomy establishes that the lachrymal gland is the source of the tears; and it is also true that there is a secretion from the mucous membrane of the eye, and that there is an absorption and an evaporation of these liquids going on at the same time. Now the secretion of the gland is not absolutely necessary to lubricate the eye when in health; but when a foreign body invades the eye, the lachrymal secretion becomes so abundant, to wash out the intruder, that it overflows the margins of the palpebræ and of the lacus lachrymalia upon the cheek. We see the same result from mental emotions, showing that when these accidents occur, the ducts are not sufficient to carry away this hyper-secretion. This state of things will occur, of course, after the destruction of the sac, when the eye is inflamed from any cause; but when the eye is free from inflammation and not influenced by mental emotion, notwithstanding the complete *annihilation* of the lachrymal sac, the eye will be as free from a superabundance of tears as though it had always been in a state of healthy action; and there will be no watering of the eye. But there will be left a lachrymal tumor—a fistula lachrymalis—or a chronic thickening of the membrane which lines the sac, without an *effectual* remedy, and the consequences can be easily foretold.

The Lessons given at the College of France, during the summer session of 1853, by M. Claude Bernard, *suppléant* of M. Magendie, were exceedingly interesting. I will give you some of his remarks upon gaseous absorption.

All animate beings are in affinity with the gas of the atmosphere. The latter contains two principles: oxygen, which is in proportion of 79 to the 100, and azote 21 to the 100; there are also some traces of carbonic acid.

1. *Importance of oxygen; and the conditions in which it is formed.* In gaseous absorption, oxygen plays the greatest and most important character; it is this which maintains the phenomena of combustion. Its importance has been known since its discovery, and has been called *air vital.* All animals absorb it; it is the same with all the green parts of vegetation; germination has want of it, and the spawn itself could

not be developed without it. If the egg or spawn of a frog or a bird is put in contact with any other gas than that of oxygen, their evolution is arrested. Here is the proof of the absorption of oxygen; put a spawn into a bell-glass filled with oxygen; the glass may be in connection with a *manomètre* containing some water or mercury. Upon examining afterwards what passes, the absorption of oxygen will be recognized by the elevation of liquid in the *manomètre*. Under this influence the spawn will develope itself. But if instead of the oxygen, another gas is introduced, the development will be arrested. This law is applicable to all beings. For respiration, the oxygen could not be re-placed; while *azote* can be. We can make some artificial mixtures respirable, provided there be some oxygen. Once absorbed, is the oxygen dissolved in the blood? Introduced into this liquid, it can circulate there, under the form of globules, but it ends by being dissolved. This is what happens when we inject oxygen into an artery by means of a fine tube; the blood attracts it, and at the end of a certain time it appears dissolved. Spallanzani is said to have seen some globules with his microscope; and also Burdaach, but neither of them observing what may have been the normal state in the individual classes elevated in the animal scale.

If the injection was too abundant, grave accidents would sometimes result, and even death. Gases, in effect, according to M. Magendie, pass only with difficulty by the capillaries of the lungs; introduced briskly into the jugular vein, they go into the right auricle and ventricle of the heart, then into the pulmonary artery, where they form a froth, or foam, which is impelled with the blood. In the parts of the lung where this foam arrives, an obstruction results; and if this is general, death supervenes rapidly. It is thus that death happens by the introduction of gases into the blood. One should be acquainted with the solubility of oxygen. A *litre* (which is a little more than a pint) of water dissolves 46 *centimetres cubes* (a little more than an ounce) under a similar pressure and temperature. But blood absorbs more oxygen than water. Magnus has made some experiments upon this subject. One thousand volumes of blood, agitated in the air, absorbed 130 volumes of oxygen; whilst 1000 volumes of water only absorbed 9 1-4; a difference immense.

The penetration of oxygen, when the air is put in contact with the lungs to traverse their fine membranes, manifests itself actively and abundantly. This is not so with water, and is owing to the different properties of the blood, whose composition is complex. The globules absorb the most. Liebig himself had thought that they alone absorbed oxygen; but the serum absorbs also, as is seen when gas is taken by some animals whose blood is without globules. Some have wished also to bring into account, in this connection, the iron of the globules. But is oxygen only dissolved in the blood? Could it not be retained there by a combination? When we add certain saline substances to liquids, we augment the facility of the former for gaseous absorption; some salts of iron make water absorb more readily certain gases. Liebig thought that the saline parts of the blood, as that of the phosphate of soda, had an action to retain the oxygen. Yet, if the mixture of oxygen with the

blood took place only by a kind of dissolution, the former ought to augment under the influence of compression, as takes place with carbonic acid, a very great quantity of which we can make penetrate, by this means, in water. We know even that this compression, carried to one or two atmospheres, augments the absorption from two to four, &c., in doubling. But the augmentation of absorption does not take place with blood as with water. During life, this absorption varies not sensibly. One can submit it to a strong atmospheric pressure without there being any very sensible modification in the phenomena of life. This even has constituted one means of treatment, and some have seen patients supported sufficiently long without being incommoded. Let us add, on the other side, that if oxygen was in a chemical combination with the blood, we could not detect it as easily as if it was only mixed. We see this question of dissolution, or of combination, of oxygen in the blood, can still be debated, and is far from being settled.

Can atmospheric oxygen undergo any modification, whether within or without the economy? In certain moments, in certain combinations, it appears to be able to acquire a greater energy. Some researches have been made in this respect. A great noise has been made about *osone*, which is oxygen having been submitted to the contact of electricity. M. Schonbein, who discovered this electricized oxygen and its properties, has made it play an important *rôle*. In his first memoir, he announces, that under the influence of electricity, oxygen acquired a special odor, and that it blued starched paper. *L'air osonisé* by electricity, as that in contact with phosphorus, becomes very irritant; animals which respire it are taken with intense and prolonged bronchitis. These affections, if the osone existed in the atmosphere, could even become epidemic. In his second memoir, he has considered otherwise of osone. This irritant and energetic body produced many similar effects upon miasms. Under the influence of lightning, he formed some osone which purified the air and destroyed some miasms. The author of this discovery having put into air *osonisé*, a morsel of meat in a state of putrefaction, it made the odor disappear, and he saw the putrefaction arrested; this meat, withdrawn afterwards from its influence, continued to putrefy. It will be possible, then, that these properties of oxygen, acquired from without the economy, may come to act upon it. M. Dumas, without yet furnishing direct proofs, has developed the opinion that oxygen, introduced into the lungs, acquires there certain special properties.

II. *Circumstances which have some influence upon the absorption of oxygen.*—As soon as oxygen is in contact with the blood, it passes into the liquid, in virtue of a kind of imbibition, and disappears. This incessant absorption carries into the economy the necessary oxygen for all the organs. The *quantity* of oxygen which is absorbed is considerable. According to Lavoisier and Seguin, who have made the calculation for each inspiration, 1000 grammes, or 20,000 grains, can enter in 24 hours. But this quantity is subject to some grand variations, as we shall see by the researches which follow. It has been observed that, during *abstinence*, there was a relative absorption of oxygen greater than during *digestion*. M. Bernard explains this difference by saying that during di-

gestion the vena porta conducts the alimentary intestinal blood with the sugary secretion of the liver, which is very active. The blood of the sub-hepatic veins, in mixing itself then with the blood of the vena cava, gives to it the sugared quality, so that some blood highly *sucré* goes into the lungs, and there comes in contact with oxygen. It is from this circumstance that a much less quantity of oxygen is absorbed, whilst a greater proportion of gas disappears. But during abstinence, the blood which goes to the lungs is less sugared, or none at all.

In some diseases, the blood ought to be less fit to absorb oxygen; this, according to all appearance, takes place in *diabetes*. We know that M. Rayer has observed that in cholera the blood becomes less *scarlet* when in contact with air. We have seen that oxygen is absorbed, even during the incubation of the spawn. However, in mammiferous tribes, the fœtus not being in contact with the air, there it appears to have an exception. The lung, which has not yet taken on its formation, is re-placed by the placenta, which is the means of communication between the fœtus and the mother. In the fœtus, the arterial and venous blood have the same color, but a color intermediate between these two kinds of blood. Fourcroy had remarked, that during intra-uterine life *the blood of the fœtus* was not *always equally susceptible of becoming scarlet by the contact of oxygen*, consequently not always in a suitable state to absorb this gas.

We can place, by the side of these facts, the researches of M. Bernard, who has found that the blood of the fœtus which contains sugar up to its birth, ceases entirely to contain it when it has begun to absorb oxygen.

M. Bernard has also verified by some experiments, that the sugar in the blood diminishes the absorption of oxygen. He exhibits two tubes or syphons, with various divisions, each filled with the same quantity of blood, that he has taken away from the jugular vein of a dog, with the precaution to draw this blood with a syringe, and to introduce it under mercury in order to avoid the contact of air. In one of these tubes he has put a small fragment of grape sugar not dissolved; he then agitates, in order to mix the blood with oxygen, and to see if there should be a difference in the absorption. In the tube not sugared, there were at the moment of the agitation, 14 divisions of the oxygen absorbed; in the tube sugared, the absorption was less, 12 divisions only were absorbed. When the sugar had subsided, it was agitated again, and then 11 divisions were absorbed in the tube not sugared, whilst there were only 8 in the tube sweetened. M. Bernard, in order to vary his experiments, took some blood from the vena porta, which is not, and some from the sub-hepatic veins, which always is, sugared. The result was the same; the blood of the hepatic veins absorbed less oxygen. These experiments, so well conducted, confirm the other observations.

MM. Regnaul and Rézé have made some experiments in another point of view. M. Bernard examined those which concerned the question with which he has been occupied. In the work which these *savans* have published, they state that rabbits, nourished with their ordinary aliments, which are very sweet, offer, from 100 parts of oxygen absorbed, 91.9 expelled carbonic acid, and that 8.1 remain in the animals;

these 8.1 parts which are kept, constituting only a very feeble proportion. If, on the contrary, the rabbits were fasting, from 100 parts of oxygen absorbed, 69.0 appear in the carbonic acid, while 31 remain in the animals. The cause of this difference is attributable only to the fact that in the first case the blood was charged with sugar. The same experimenters have continued their researches with animals submitted to an *aliment containing no sugar*, which constitutes a kind of counter proof. Some dogs were put upon the use of meat only, and during their digestion they were placed in an appropriate apparatus. From 100 parts of oxygen absorbed, 75.2 have re-appeared in the carbonic acid; 24.8 have been kept by the animal. If the dog was nourished with bread, 91.2 re-appeared in the carbonic acid; 8.8 remained in the body. If the dog was fasting, we find the same condition as with the rabbits fasting. But here is another case; it is that in which *an alimentation diminished the production of sugar*. For M. Bernard has shown that alimentation by *fat* hinders this production. A dog, having been nourished with fat, or grease, and placed in an apparatus, rendered only, from 100 parts of oxygen absorbed, 69.4 in the carbonic acid; 30.6 remained in the body. This animal was found, then, in the condition of the rabbits submitted to abstinence. The more there is of sugar in the blood, therefore, the less there is of absorbed oxygen, and the more oxygen appears under the form of carbonic acid.

It remains to ascertain why there is relatively more oxygen during abstinence and less during digestion. During the latter, there seems to be formed a kind of *emmagasinement*, which renders, perhaps, the oxygen less necessary. Some have observed, moreover, many varieties of secreting phenomena; for example, in certain animals that can take a great quantity of food, the urine, during digestion, is troubled, alkaline, and contains an abundance of carbonates; whilst during abstinence, it is clear, and urea is in greater quantity. There is another substance which is found normally in the blood, which acts in an inverse sense to the sugar, and which augments the absorption of oxygen; it is the *chloride of sodium*.* In order to demonstrate it, M. Bernard has made the following experiment. He took some blood from the jugular vein by means of a syringe, and put it into two gauges. In the one, he had some pure oxygen introduced under mercury; in the other, some oxygen with a feeble solution of chloride of sodium. In agitating the two mixtures, the first absorbed 32 parts from the 100 oxygen, and the second absorbed only 20.

But with animals submitted to a saline alimentation, if we suppose that, in their respiration, there is a greater proportion of oxygen absorbed, can we confirm it by any experiments, as has been done with sugar? Some researches have been made by M. Boussingault upon saline nourishment; others by M. Barral; more recently MM. Magendie and Rayer, in a commission instituted by the Minister of War, have administered to horses some strong potions of salt. But these studies have not been undertaken with reference to ascertaining the quantity of oxygen absorbed in respiration. We are therefore left to invoke *analogy* and *reasoning*. When a notable quantity of chloride of sodium

is taken, the appetite is augmented, and animals find themselves probably, under the *rapport* of the absorption of oxygen, in the condition of those who are fasting; this state ought to be only temporary; the salt traverses only the blood, and is evacuated by the urine. We have seen, on the other hand, that the *urea*, during abstinence, shows itself in greater proportion in the urine, and we know that it is a result of nutrition; as in giving salt to an animal, we augment the production of urea; being in an analogous condition to that of abstinence, it absorbs a greater quantity of oxygen. M. Boussingault has examined the question under the connection of *engraisement*. He believes that in augmenting the appetite by salt, we ought to fatten animals. But good forage sufficiently augments the appetite; the salt is only necessary to induce them to eat that which is damaged. The appetite comes when the blood has the property to absorb more oxygen. If a determined ration is salted, the animal will consume more oxygen; he will respire more strongly, his assimilation will be more active and more complete; but the nutritive want will be augmented, and he will then become emaciated, because his food is destroyed with too much action, and it will end by using its proper substance. It is thus that an *herbivorous* animal fasting, in using his blood, becomes, in some sort, *carnivorous*.

Why is oxygen absorbed in a greater quantity by salted blood, than by sugared blood? Do the red globules play a *role*, is this respect? All that we can say, is, that under the influence of salt these globules become smaller and flatter. We see, with regard to sugar and salt, some phenomena connected with *obesity* and *emaciation*. In effect, sugar, in diminishing the assimilation, ought to be favorable to obesity; and it is certain that feculent substances fatten. The chloride of sodium produces an inverse result; if one takes very much, he emaciates, too much oxygen enters into the blood. In making animals eat greasy substances, they do not fatten, but they emaciate, as M. Magendie has said, which proves that in order to produce *obesity*, it does not suffice to introduce into the economy substances identical with those which we wish to accumulate there. It is necessary that these substances should act in a certain manner. There exists, without doubt, in the blood, some *other substances* less important than the sugar and the salt, and which, moreover, doubtless perform some part in absorption. Medical substances which serve the medical art, are not probably without having some influence upon the absorption of oxygen by the blood. The continuation of similar studies cannot fail to have its application in medicine; for if, in the normal state, it is necessary to have certain qualities in the blood, in order to absorb oxygen and sustain life, we shall see that when these conditions cease to exist in the blood, this absorption is troubled, and life can be compromised. But more anon.

Respectfully, A. B. H.

DEATHS FROM THE INHALATION OF CHLOROFORM.

[The London Lancet of October 29th contains the report of two cases of death from the use of chloroform—one at the University College

Hospital, October 6th, and the other at St. Bartholomew's Hospital, October 21st. The latter we copy in full, with the post-mortem examination, as every particular in a case of this kind is full of interest. We also insert the series of rules, by a distinguished surgeon of Paris, which are appended in the Lancet to the report]

The patient was a girl of loose habits, 22 years of age, who had been in this hospital two years before the present admission. She was then laboring under an affection which was long looked upon as syphilitic; there was, in fact, considerable discharge from the vulva, and within the vagina was seen an ulcer which was thought to be of a specific nature; but it turned out to be a cancroid growth, situated just at the entrance of the vagina. It had, on former occasions, been observed that no secondary symptoms were occurring, though the sore presented a certain amount of induration; there was no pain, but the discharge was pretty considerable, and harassed the patient much.

Mr. Paget, having resolved to destroy the tumor, gave the preference to the actual cautery, and hoped that by this means he should succeed in freeing the patient from the inconvenience she was suffering. A fortnight before the day when the inhalations of chloroform had a fatal issue, the ulcerated surface was touched for the first time, when the patient had also inhaled chloroform. She had been thrown into an incomplete state of anæthism, for she started when the heated iron came in contact with the sore; she was therefore made to inhale more chloroform, and fell into perfect narcotism, from which she subsequently recovered very well.

On the 21st of October, 1853, it was thought advisable to repeat the operation, and the girl was brought into the operating theatre. Dr. Black, warden to the College, who administers chloroform by appointment, placed upon the patient's mouth the ordinary tin and leather inhaler, which covers nose and mouth, and which is always used in this Hospital. When she had been placed on the table, Dr. Black applied the apparatus, and she continued to inhale the anæsthetic agent very quietly for about ten minutes before it took any effect upon her. All at once the patient was noticed to present an unusually dusky countenance, the pulse became weak and fluttering, and the breathing irregular. Mr. Paget had not as yet begun to operate, and the whole attention was now turned to the state of the girl, and every effort used to recall her to life. Artificial respiration was first employed in the manner advised by Ricord, the air being thrown into the lungs from mouth to mouth. As this, however, did not succeed, an opening was made between the thyroid and cricoid cartilage, and artificial respiration continued by means of a tube passed into the aperture, to which a pair of bellows was adapted. In order to rouse the system, brandy and water was thrown up the rectum. Whilst these measures were energetically carried out, a warm bath was being prepared, and the patient was placed into it as soon as it was ready, artificial respiration being persevered in while she was immersed. During the continuance of these efforts, Dr. Burrows and Dr. Black detected now and then a pulsation at the wrist; but all these endeavors proving useless, galvanism was had recourse to. The shocks produced

very strong spasms, but no efforts at breathing, and it was plain that the only measure which could be relied upon was artificial respiration. This was continued with the greatest perseverance, but to no avail, and it soon became apparent that all the efforts at reviving the poor girl were perfectly useless. The whole amount of chloroform which had been inhaled was below two drachms, and, as stated above, the apparatus was the usual one, viz., the leather and tin case for nose and mouth, with the upper aperture and sponge for pouring in the chloroform.

Post-mortem Examination made twenty-four hours after Death, conducted by Mr. Paget.—There was general congestion of the brain, but not very marked, the only veins much congested being those at the posterior part, the blood being in a very liquid state. The puncta were not larger than usual, and the blood, which had been placed in a jar, did not coagulate. The ventricles contained an ordinary amount of fluid, and the pons Varolii presented normal features on a section being made through it. The only peculiarity worth noticing (and the same had been observed in the patient who died from the effects of chloroform some time ago, under the surgical care of Mr. Lloyd) is that the blood was found liquid in the veins, and remained so after it had been put aside. The kidneys were somewhat congested; the left one was found scarred from previous disease, when the proper tunic was drawn off, and it was supposed that this might be the result of disease in early life. The peritoneum was thickened on the surface of the liver, and the left kidney was full of fluid blood. The spleen was adherent to the diaphragm from previous general peritonitis. The stomach was full of undigested food, and still the patient had stated that she had had no dinner; it is supposed that she took bread from her locker, and had potatoes given her by her fellow patients. On the mucous membrane of the stomach some coagulated milk was adherent, but the viscus itself was quite healthy, as was also the pancreas, of which there was a small offset attached to the serous surface of the jejunum. The heart was altogether flabby, but decidedly *not fatty*; the right ventricle was of the ordinary size, and slightly mottled at the upper part, the muscular tissue being rather of a thin texture, and generally pale. The lining membrane of the ventricle was rather thickened, and the paleness of the heart formed rather a contrast with the florid tint of the voluntary muscles, but the viscus did not present the characters of fatty degeneration.

Now what do we learn by these accidental deaths, and the account of the post-mortem examinations? 1st, that the fatal effects may ensue in a very short or comparatively long time (three minutes in one case, and ten in the other); 2d, that a fatty heart will cause death to occur in a much shorter time than is necessary when this organ is sound; 3d, that a perfectly healthy heart is no preservative from the fatal effects of chloroform; 4th, that a previous complete anæsthesia by chloroform is no guarantee that a subsequent one will be harmless; 5th, that even the artificial respiration from mouth to mouth, which has been much extolled, may fail at a certain advanced period of anæsthesia; 6th, that patients may fall victims to chloroform though in an excellent state of general health; 7th, that habitual intemperance seems a counter-indica-

tion to the use of chloroform; 8th, and lastly, that accidents of the kind described above will happen with the best and most practised hands.

The next question is—Whether we can offer any suggestion as to the means of avoiding the sad results which we have just mentioned? On this point we gladly refer our readers to the excellent papers which from time to time have been published on the subject, and shall just extract from M. Bauden's memoir such advice as may be considered of value under the present circumstances:—

1. Never go, intentionally, beyond the limit of cutaneous insensibility.

2. The management of chloroform may be divided into three stages—before, during, and after the inhalations.

3. *Before: Counter-indications.*—Study the patient's constitution; find out whether there exists organic lesions of the heart or lungs: these would be a counter-indication, as are also asthma, aneurism, phthisis, chlorosis, anæmia, chorea, &c., and predisposition to cerebral congestion.

4. The patient's mind should be perfectly calm, and the medical attendant should speak of chloroform as a boon, when carefully administered.

5th.—The patient should be wishing for anæsthesia, and have full confidence in his medical adviser. If he should feel any apprehension or gloomy forebodings, chloroform should be steadfastly refused.

6. Patients have in all times died from the fear or pain of operations; but the influence of *fear* is now no longer taken into account, and chloroform accused of all the mischief.

7. Chloroform must never be given but for operations of a certain importance, and patients should be fasting.

8. Attention should be paid to the debility which naturally follows serious operations and considerable loss of blood, for the organism thus loses its power of resisting the influence of anæsthetic agents.

9. The operating room should be of good dimensions, easy of ventilation, and every article necessary in case of danger should be at hand.

10. *During the Inhalation.*—Chloroform should be administered in hospitals by persons specially appointed for the purpose; and in town by practitioners who make it their exclusive occupation.

11. The quantity of chloroform should be carefully measured, about fifteen minims being taken at once.

12. The length of time during which the patient is inhaling should be counted upon the watch, as also the pulse and the number of respirations. Note should be taken of the force and frequency of the pulsations of the heart; if the latter fall *below sixty*, the inhalation should be stopped.

13. The patient should be in the recumbent position, the head slightly raised by a pillow; and should be given doses of fifteen minims, the time between them being made gradually shorter.

14. The handkerchief should be first held at a little distance, and gradually brought nearer the face, the patient being spoken to in a kind and encouraging manner.

15. The latter should be frequently asked, whilst he is being pinched,

what is done to him; and when he begins to answer with ill-humor, you pinch him, he is on the point of losing the faculty of sensation.

16. As soon as he answers no more, feeling is abolished; the handkerchief should be taken away, and the operation begun, for we should never wait until muscular resolution is complete.

17. Excitement, which often marks the first degree, is a mark that the handkerchief should be removed, far from being kept on as is generally practised.

18. The time has now come to watch the heart and the respiration. On the slightest retardation, and if the symptoms of anæsthesia go on or are even increased, means should be immediately taken to bring back the insensibility to the first degree.

19. When spasms of the larynx or much cough occur, if foam come to the mouth, if the pulse falls, if breathing becomes embarrassed, if there appears any mark of syncope or cerebral congestion, the inhalations should at once cease.

20. Slight struggling may be resisted, but violent excitement, and the exclamation of "I am choking," should be followed by the immediate removal of the handkerchief.

21. For long operations the inhalations should be intermitted, and the chloroform may be resumed as soon as the patient begins to sigh or move about. Anæsthesia has in this manner been kept up for one hour.

As to the means to be used in case of threatened death, M. Baudens enumerates most of those which were used in the two cases which we have adduced above.

ACCOUNT OF AN OBSCURE CASE OF PROLONGED SOMNOLENCE.

BY GEORGE W. HUNTER, M.D., OF HARRISONBURG, VA.

August, 31st, 1853.—I was called upon to consult with Dr. Gordon upon the case of Araminta Ragan, a delicate girl of thirteen years, with a pale sallow complexion.

It appeared that after breakfast that morning, she had gone to sleep, and that when her parents attempted to awaken her, she was seized with a spasm, which was followed by a state of such profound insensibility, that the family supposed that she was dead. Her pulse could not be felt, and not the slightest respiratory movement was perceptible. When we arrived, the patient had revived somewhat, and we attempted to promote reaction by forcing brandy into her mouth, and by applying sinapisms to her hands, feet, and epigastrium. We learned that, upon the previous evening, she had eaten largely of indigestible food. After many efforts, we succeeded in administering about twelve grains of ipecacuanha, by introducing the medicine into her mouth, little by little, and then holding her head back until it tickled the fauces and produced deglutition. She vomited twice tolerably freely, and her consciousness then returned for half an hour or more, during which period she recognized those around her, but never spoke. On being asked, Where she felt sick? she an-

swered by putting her hand over her stomach. She soon relapsed into her former somnolent state.

Dr. Gordon suggested that the symptoms might be dependent upon hysteria, and proposed the administration of gr. xxx. of valerian. This produced no appreciable effect.

Dr. Henning and Dr. S. M. Hunter visited the patient during the day; they coincided in the conclusion that we had finally adopted: that the disease originated in gastric disorder.

September 1st.—The condition of the patient was little changed, except that the pulse had risen to 120; it was rather small and feeble. Her tongue, which she would put out when frequently asked to do so, presented a thin white fur; her respiration was natural. (Hydrarg. chlor. mit., gr. x.; pulv. ipec., gr. viii.) This powder was to be followed in five hours by half an ounce of castor oil.

Sept. 2d.—Several dejections; pulse at 80; skin warm and moist. The patient lies with her eyes closed; she has swallowed a little water and soup. Bread was given her, and she chewed, but did not swallow it.

Sept. 3d.—I called to see Miss R———, and found her still asleep. Pulse at 80, and natural; breathing regular. The patient has the appearance of a person in natural slumber. It was decided in consultation that she should be cupped upon the temples. She was freely cupped, without any apparent change. She raised her hand and seized the glass during the operation.

Sept. 14th.—I have seen Miss R—— nearly every day from the first of her sickness to the present time (more than two weeks). She has remained in the same semi-comatose condition during all this time. Within the last two or three days she has been moaning some, but she still sleeps. To-day, however, she opens her eyes and keeps them open for a time, but does not speak. Her pulse has for some days been growing gradually weaker, and her breathing has increased in rapidity. She is now, and has been throughout her sickness, perfectly rational. When asked to-day if she knew which was the Doctor, she smiled and turned her eyes towards me. She moans, and attributes her pain to the stomach. She is evidently sinking, and I have prescribed brandy and quinine, and a mustard plaster to the stomach.

Sept. 24th.—The patient died on this day. Her strength had gradually failed during the preceding fortnight; no new symptoms had presented themselves, and nothing had occurred to throw light upon the nature of her disease.

Sept. 25th.—Sectio cadaveris, 24 hours after death.—Dr. Glassell and I made the post-mortem examination in the presence of all the physicians of Harrisonburg.

Chest.—Adhesions of right pleura. Both lungs filled with tubercles, from the size of a grain of sand to that of a small pea. None of the tubercles were softened. Heart normal. Slight effusion of lymph in pericardium.

Abdomen.—The left end of the stomach was healthy; the pyloric extremity was slightly inflamed. At the junction of the stomach and duodenum, on the outside, we found a mass, which we all considered tu-

berculous, of the size of a hen's egg, and of a cheesy consistence. The small intestines generally showed traces of high inflammation. The duodenum was of a brown color; we supposed that this might be owing to the effects of the bile, and attempted to wash it away, but were unable to do so. The gall bladder was distended with bile, probably in consequence of the pressure of the tuberculous lump upon the ductus choledochus.

Encephalon.—The brain and its membranes were perfectly healthy, except that the superficial blood-vessels were perhaps a little congested. The ventricles presented the same appearances, that I have seen in dissecting rooms, when I was a student. The base of the brain presented no abnormal alterations. The medulla oblongata and cerebellum were equally exempt from morbid appearances.

We concluded that the immediate cause of death in this case, was the inflammation of the duodenum and small intestines; the remote cause, the tuberculous depositions which excited the inflammation. I should not forget to remark that an hereditary tubercular taint existed.

As to the causes of the profound state of somnolence which lasted throughout the whole course of this singular case of sickness, a period of twenty-five days, I have no explanation to offer; neither shall I attempt to theorize upon the various obscure features which the case presents. I give this history to the profession, hoping that some solution will be found to an enigma, which baffled the sagacity of the numerous physicians who saw this patient during her illness.—*Virginia Med. and Surg. Jour.*

DR. MARSHALL HALL ON THE NERVOUS SYSTEM.

[The following synopsis of the second lecture by Dr. Marshall Hall, in New York, delivered some months since, is taken from the "Times," of that city. It has every appearance of being correctly reported, and is withal so comprehensive, and yet brief, that it is transferred to our pages as a fair exponent of the views of this distinguished man on matters connected with the nervous system.]

The nervous system is divided into the cerebral, spinal, and ganglionic. Through the cerebral we are brought in connection with the external world. We perceive through it, and through it we recognize sensations of pleasure or pain. The spinal system presides over all our ingestions and ejections; guards all the avenues that connect the internal organs with the external world; governs the sphincters; retains what we have within; and prevents the introduction from without of what would prove noxious if admitted. The ganglionic system relates to all the operations of assimilation; manages the secretions; presides over the growth of the body; and, when deranged, is the immediate cause of marasmus.

The action of the nervous power upon the muscles is three-fold:—direct, reflex and retrograde. Of the *direct action*, it is a general law, which is centuries old in the books, yet while it was supposed to be the only action of which the nervous system was susceptible, never was applied to physiology—that it is always downward, *i. e.* from the centre to

the extremity; from the point where the action commences along the course of the nerve till it is too small further to be traced.

The doctrine of the reflex action is Dr. Hall's own. He was studying the phenomena that transpire within the lungs of the frog, when he noticed that a slight irritation of the toe of the animal created a spasm of the extremity. He fell to wondering what was the cause of the spasm. He had excited nervous action, but he had not touched the brain. He had stimulated the excitability of the muscles of the part, doubtless, through the spinal system, since all motion is communicated to the muscles through the medium of that system. yet he had not reached the medulla oblongata. The jerking of the frog's foot was to him like the apple falling to Newton. He suspected, and subsequent experiments confirmed his suspicions into convictions, that in touching the skin he had touched the extremities of nerves whose office it was to carry back to the centres, messages of communication with the external world. This point established, the circle was completed, and the three-fold nervous action—direct, reflex, and retrograde, was easily demonstrated. In illustration of these principles, Dr. Hall performed the same experiments which he had shown on his first lecture.

He divided the spinal marrow of the frog. By this operation all sensibility was removed. According to the learned doctor's theory, it was no longer capable of feeling pain. It might squirm at will, or even cry out as a wounded frog may, but it can't be said to suffer any pain—it is incapable of being hurt. He laid it upon its back; there it would lay until it was dead, unless something should irritate the skin, and through the reflex action spoken of, cause the muscular contractions. He was confident the frog would lie there till morning;—just then the frog kicked, as if to turn over. The Doctor was satisfied that in moving the table the frog's skin had been excited He rubbed it, and the frog was lively. He replaced it on its back, and pressed upon it slightly, and the creature laid still as a sleeping baby for a moment, when it hopped off again. Dr. Hall confessed that he must have left unsevered some fibres of nerves connecting with the brain. To make sure he thrust a probe into the cerebral cavity, and the poor frog piped out his last scream—not of agony, for it did not hurt him at all. He screamed because the probe was exciting violently the medulla oblongata, whence proceed the nerves that affect the vocal organs. The poor fellow then, laid upon the table, was pinched, but he did not respond with a spasm. He was paralyzed by the shock. This state of shock, said the Doctor, is temporary. It passes rapidly away. And in a moment after, pressing on the skin of the toe, the whole body was convulsed. Here was an illustration of Dr. Hall's new law, of an ascending movement from the skin to the centre, yet not acting through the brain, but reflected from the spinal centre.

Next he dissected off the skin of one foot. No irritation of the denuded flesh caused any excitability of the muscles. Next he grasped the spinal nerve in his forceps, and both legs were violently convulsed. Then he severed the lumbar nerve of the extremity that was not denuded; the part supplied by that nerve was convulsed. Now, no irritation of the skin produced any spasmodic action, for, though the cutaneous

nerves carry the impression to the centre, there was left no medium for their direct action to reach the muscles. Then, with his probe he destroyed the whole course of the spinal marrow—after which, of course, there was no longer any action to be got out of that martyr to science. The frog was dead, sure.

The learned lecturer deduced some very important practical lessons from these experiments. A paralysis caused by a shock is generally curable. Sometimes the patient's paralysis passes away while he does not know it, but, from disuse of the paralyzed part, the inaction in it may remain. The determined will of the enlightened physician works almost miracles in such a case, and the bystanders may add the case cured by moral means to the list wherein the imagination is said greatly to aid the cure. Paralysis, in which there is no spasmodic action, is very generally of cerebral origin. Where there is spasmodic action, the spinal column is also affected. The practical physician will see how his treatment should vary with these varying causes and seats of the disease.

The lecturer upon another frog dropped a small quantity of the solution of strychnine; and, whereas before he had been dull and half asleep, as is his custom in winterish weather, he suddenly exhibited a great deal of life and energy. Soon his muscular activity took on the form of tetanus, or, as the lecturer insisted, hydrophobia, When let alone, he lay still and motionless. Touching him ever so gently on the back produced a spasm. These spasms frequently provoked, he stretched himself out, and, to all appearance, died. Rubbing him would secure a slight spasm, but each returning one grew fainter and fainter, till the muscles ceased to respond to the irritation of the skin. Now, said the doctor, dead as he seems, I have no doubt but if I remove him to a cool place, putting him, meanwhile, in water, I shall find him in the morning well and strong, and ready to be useful as the subject of another experiment. Just so it is with patients suffering under tetanus or hydrophobia. We must place them in quiet, cool, and comfortable quarters, and, for their lives' sakes, let them alone. Handling them hurries back the spasm, and each new spasm hurries the life out of them. Hydrophobia kills in three ways: First, by laryngismus; second, by the repeated excitation causing repeated shocks; and third, by the effect of the poison upon some internal organ. Tracheotomy is equivalent always to laryngismus. Perform it, and death from that cause is impossible. The second cause is removed, if at all, by perfect quiet and the avoidance of every possible thing that can annoy the patient. The third, when the disease reaches that stage, is probably beyond the cure of man.

The lecturer spoke of epilepsy, its causes and means of cure. The readers of the Lancet of the past year may remember a table of twenty-four cases, in which Dr. Hall is said to have stated that tracheotomy may be required. Among these cases were named coma after epilepsy, epilepsy laryngea, and epilepsy with torticollis. He had been misrepresented. He had been charged with recommending the operation of laryngotomy for the cure of epilepsy. He never did. For the laryngismus of epilepsy he did commend it to the serious attention of sur-

geons and physicians. Here it removed a cause of death. The physician and dying patient both gain time by its means, and during the time gained, skilful *medication* may pluck the patient out of the jaws of death.

The best instrument for the operation was one much resembling a pair of dissecting forceps ground to an edge. Plunge it into the larynx, and a stout spring opens the blades of the forceps and forces the lips of the wound asunder. He also exhibited what he held to be the best possible instrument for keeping the passage open when made.

An epileptic patient was then brought forward and examined by Dr. Hall, but the account he gave of himself was so unsatisfactory that the doctor did not definitely prescribe.

He said that the excellent president had been striving to inveigle him into the delivery of another lecture. But he should be stubborn—he had left home for his health's sake, and that must be his apology for his stubborn refusal. He never should forget, wherever he went, the extreme kindness of his friends in this country, and hoped, though an ocean should separate them, he might be kindly remembered—and so, tenderly, he bade his numerous and most attentive audience farewell.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, NOVEMBER 30, 1853.

Locations for Medical Men.—From the circumstance that letters are perpetually coming to hand which ask the question where there is a good location for a physician, it would seem that there are few such to be found. A vacant place, in fact, is not worth having. Those localities which present a field for enterprise, are in the possession of enterprising men. A man possessing the right social and scientific qualifications for a physician, will always be in request, go where he may. Very many, in the arduous profession of medicine, who are unsuccessful, impute it to a lack of discernment in the people, when the difficulty is actually in themselves. Great ardor or an impulsive ambition to manage a large business, is no evidence of a sound judgment, or superior attainments. If half a dozen gentlemen devoted to the same pursuit are residing in a town, with a limited population, and they are all equally competent, they will each have employment. The field, to be sure, may be small, but it is a law of society, that a good capacity and thorough attainments shall be exercised more or less, to the advantage of the individual and the benefit of the community. As population is rapidly increasing in most of the cities of this country, the prospects of medical practitioners are, on the whole, bettering, notwithstanding their increase of numbers. Cities, full as they are, as a general rule, offer the best propsects for young medical men. Fame and fortune, if such are objects of pursuit, and can be acquired at all, are more quickly acquired in a densely-inhabited locality, than in a sparsely settled one. True it is, medical competition, like rivalry in trade, there runs high, but those who win at last, obtain good prizes. We are in the habit of saying, therefore, of late, when asked to direct an applicant to the most promising

locality, that if no manifest opening by death or removal offers in the country, settle in the city by all means, although no vacancies are discoverable. there.

Progressive Medicine.—A monthly quarto sheet, called the "Franklin Journal of Progressive Medicine," has appeared in New York, the object of which seems to be to aid in the sale of certain medical preparations. Vast ingenuity is exercised by the patentees and owners of worthless pills, powders and the like, to create a demand for them, and generally with success. A more gullible people than our own cannot be found on the globe, in the matter of medicine. They are proverbially keen-sighted in every thing else but their own health. When they feel sick, their greediness for swallowing down all sorts of stuff, from irresponsible sources, is extraordinary. The more obscurity and mystery about the composition, the better. Jonathan loves physic dearly. He likes strong purgatives. If they are terribly drastic, he is satisfied; there is power in them, and he goes in for strong measures in medicine as well as in politics. Arguments against the use of them are quite useless, since so many will taste for themselves, and pay roundly for the cheat. Progressive medicine is a delusive term, when it has no higher meaning than heralding the progress of the people from the use of one quack medicine to another.

Progress of Invention—New Breast Pump.—Men of ingenuity have in all ages been found, who have exerted their skill in relieving the physical sufferings of their fellow creatures by mechanical means; and consequently, new apparatus of various forms, adapted to the emergencies of our mortal lot, are from time to time brought forward. One studies the best mode for making counter-extension; another invents a knife of a peculiar form; while a third turns his attention to the construction or improvement of various other kinds of instruments.

Being in Mr. Spalding's Medical Depot, Tremont Row, the other day, we were struck with the novelty as well as utility of an ingeniously-contrived breast pump, the result of Dr. O. H. Needham's researches in the pursuit of a mechanical plan to relieve nursing women from the torture of a sore breast. A very correct description of it cannot be given without a drawing for reference. However, the principle will be understood, by saying that an India rubber cup is made to fit about the nipple, without touching it, from which a long flexible tube communicates with a suction pump in the shape of a bellows in a small box, in which the whole can be packed. The lady applies the cup, seated or lying, as circumstances demand, and with her finger works the bellows. The milk flows freely, and without the least degree of irritation; and instead of running down the exhausted tube, falls into a glass receiver, attached to the side. Physicians will find this instrument a help and a comfort which they can in many trying cases consistently recommend.

Practice of Specialties.—A new idea was never promulgated in medicine, or an improvement in practice advocated, that did not meet with opposition from some quarter. Indeed this fact constitutes an essential part of the history of the science, and hence it is needless to cite a single case to establish the proposition. This Journal has steadily and conscientiously advocated a subdivision of labor in medical pursuits, as the surest method of improving the several departments and therefore of benefiting general

practice. A single professor does not attempt to give a course of lectures on anatomy, surgery, theory and practice, midwifery, chemistry, materia medica, &c. An institution, with its one professor of all work, would not have a pupil. The same reasons exist, though not perhaps to the same extent, against one physician practising all these branches. It is true, there are conditions of society and other circumstances obliging a man to engage in a mixed business; it cannot well be otherwise in thinly-settled places; but the question is, would not a physician be more skilful in the management of one disease, than forty, were he to give to it the whole of his time and thoughts? One medical journal has attempted to be particularly severe on several eminent professional gentlemen of Boston because they are pursuing this kind of practice, which the people and the times unmistakably demand; but no mere pen and ink opposition can arrest the progress now making in this direction. Oculists, as well as dentists, are steadily multiplying. Several other specialties are sustained by the community, and all parties are the gainers by it. Lastly, the newspaper press, the strongest engine in the country, begins to advocate the system. The able conductor of the medical department of the New York Daily Times has given in his adhesion, and with arguments strong and numerous points out the certain benefits that must follow to the community from having physicians who, after having studied their profession as a whole, devote their attention in practice mainly to the treatment of only one class of maladies. Not to be tedious upon the subject of specialties, which we know is looked at in a less favorable light by some of our brethren, we will close this paragraph by predicting that special practitioners will continue to multiply in our cities.

Coxalgia.—The paper by Alden March, M.D., of the Albany Medical College, presented to the American Medical Association, at the session of May, 1853, has come to hand in a distinct pamphlet. It is in the right form to be sent by mail, and to those who may not have access to the new volume of Transactions, would be very desirable. Dr. March holds a distinguished position among American surgeons, and hence his professional opinions, and whatever of experience he finds leisure for giving to his medical brethren, may be considered as valuable. The hip-disease is one of great interest, and is usually taken in hand for treatment by men of acknowledged ability. No ignorant man would dare commit himself by writing about it, and hence the literature of the disease, for a long period, through the Bells, Pott, &c., are among the strong papers of both the old and modern school of surgical operators. Dr. March's communication contains the views of the best English, German, Scotch and French authorities, to which are subjoined his own. He has certainly pursued his investigations with an ardor that commands our respect. His mode of extension and counter-extension must be studied and then imitated.

Educated Nurses.—A good prospect is opening that a sufficient amount of funds will be procured to commence the education of nurses, at the Female Medical College in this city. Those properly educated would be in constant request. Our benevolent and opulent citizens would confer a favor on society, by assisting the institution to accomplish this praiseworthy plan. A hundred intelligent females ought to be attending lectures the present season for the purpose of becoming skilful nurses.

Irregular Practitioners at the West.—A correspondent of the Peninsular Journal of Medicine, published at Ann Arbor, Mich., has been collecting information respecting the number of practitioners of all kinds in the principal towns of the State of Michigan, including a few in Indiana and Ohio, and the result has shown a smaller proportion of irregulars, especially of eclectics, than we had been led to suppose were practising there. The following are the numbers:—Total of all practitioners, 338—viz., regulars, 255; homœopaths, 32; eclectics, 15; miscellaneous, 36.

Spontaneous kindling of Fire in the Human Body.—The Courier de l'Eure communicates to the world an account of spontaneous kindling, though no combustion, in the person of a mantuamaker. This young lady was sewing one night by the light of a candle, when she felt an undue heat all over her body. She noticed at the same time that her forefinger was on fire. The flame was bluish, and emitted a sulphurous smell. She plunged her hand into cold water, and wrapped it in moistened cloths, but the burning still continued, and spread over her hand. Her apron caught fire, and she was obliged to take it off. The flame was only visible in the dark. The girl spent the night in efforts to extinguish the blaze, and only succeeded at day-break.

New York Institution for the Deaf and Dumb.—The corner stone of the new edifice to be erected for the deaf and dumb of the State of New York was laid on Tuesday, 22d inst., at Washington Heights, near New York city. A splendid entertainment was given; and the whole proceedings, which were on a large scale and successfully carried out, are reported in full in the New York Daily Times.

Medical Miscellany.—Accounts from Cleveland, Ohio, represent the Medical School of that city to be largely attended.—Yellow fever clings to some of the West India Islands very disastrously, almost to the ruin of their commerce.—Dr. Bull, one of the most distinguished surgeons of Cork, committed suicide whilst laboring under an aberration of intellect.—Dr. Francisco Hernandez, a celebrated physician of Cuba, is under arrest by the government; and also his son, a lad of 13, who had just arrived from the United States.—The New York Times states that the New York County Medical Society lately held a meeting in the *Tombs*.—Dr. Fisher W. Ames, accused of shooting a Mr. Hall, a few weeks since, has been acquitted.

MARRIED,—In Boston, 15th inst, Arba Blair, M D., of Rome, N. Y., to Mrs. Sarah Farrill, of Boston.

Deaths in Boston for the week ending Saturday noon, Nov. 26th, 75. Males, 45—females, 29. Disease of the bowels, 1—inflammation of the brain, 3—burns and scalds, 3—consumption, 6—convulsions, 3—croup, 2—dysentery, 1—dropsy, 2—dropsy in the head, 1—infantile disease, 5—puerperal, 1—typhus fever, 3—typhoid fever, 2—scarlet fever, 4—homicide, 1—disease of the heart, 4—hemorrhage of the lungs, 1—intemperance, 1—inflammation of the lungs, 6—disease of the liver, 3—marasmus, 2—measles, 9—pleurisy, 1—smallpox, 1—teething, 3—thrush, 1—unknown, 4.

Under 5 years, 39—between 5 and 20 years, 6—between 20 and 40 years, 13—between 40 and 60 years, 12—above 60 years, 4. Born in the United States, 51—British Provinces, 1—Ireland, 20—Germany, 1—Norway, 1. The above includes 6 deaths at the City Institutions.

Saline Treatment of Dysentery.—Several cases, which have come under our observation recently, of successful treatment of dysentery with chloride of sodium, sulphate of magnesia, and other salts in small doses, have convinced us that these remedies are not used as often they might be with be with benefit in a class of cases in which portal congestion is the immediate cause of too frequent and free discharges of bloody and serous fluid from the intestines. In a former number of this Journal, we endeavored to show that alkalies and their compounds are the proper remedies in all cases of torpidity of the liver, resulting from a deficiency of the alkalies as compared with fatty acids for the formation of bile. Portal congestion from torpidity of the liver, caused by deficiency in the alkaline constituents of the blood, is doubtless one of the most frequent causes of dysentery and serous diarrhœa; hence it is that the substances under consideration are in many cases the most efficient and prompt remedies. The cases which have been treated successfully by these remedies under our observation are not numerous, but sufficient in number to justify us in calling the attention of our readers to the subject.

One of the prescriptions which has been found most efficient in dysentery is—Chloride of sodium, ℥ss.; Sulph. Morph., gr. 1-3; in powder or dissolved in mucilage of gum arabic, repeated every four or six hours.—*Ohio Medical and Surgical Journal.*

The Cholera in England.—Since our last report the cholera has made no progress as an epidemic. In Newcastle it has all but disappeared; but in various places in the North, and in several districts of the metropolis, cases have been reported. Diarrhœa has prevailed in various parts to a considerable extent, but its arrest in the early stage has no doubt in many cases prevented its degenerating into cholera. The General Board of Health and the Local Boards have been very active during the past week in all the places in which there was a threatened outbreak, and there is good evidence to show that the medical and sanitary precautions taken have been attended with the most satisfactory results. In every instance in which either cholera or diarrhœa has prevailed, the same causes have been at work; indeed it is remarkable to observe how uniform the reports are in this respect. It would be tedious to give in detail the particulars relating to all the places in which these diseases have prevailed, as they would only be a repetition of the old tale about bad drainage, bad water, removable nuisances, &c.—*London Lancet, Oct.* 22.

In London, the whole number of deaths from cholera, during a period of eleven weeks, ending Oct. 15, was 278.

Valuable Medical Donation.—A physician, attached to one of the hospitals in Paris, has recently donated to the proprietors of the *Gazette des Hopitaux*, one of the oldest Medical Journals in France, 10,000 francs per annum, on the following considerations:

1st, That the donor's name shall forever be kept an inviolable secret.

2d, That 3,000f. per annum of the sum shall be employed in encouraging the authors of useful and practical papers published in the *Gazette.*

3d, That the remaining 7,000f. be employed in distributing copies of the *Gazette* to physicians or students who are too poor to pay the whole or any part of the subscription, the simple declaration to that effect of the applicants, being all that is to be required.